WHAT IS CLAIMED IS:

1. A balloon catheter, comprising:

an elongated shaft with proximal and distal shaft sections and an inflation lumen extending therein;

an inflatable balloon on the distal shaft section and in surrounding relation thereto having proximal and distal ends, an intermediate section longitudinally disposed between the balloon proximal and distal ends, and an interior chamber in fluid communication with the inflation lumen; and

an outer tubular member and an inner tubular member disposed within at least a portion of the outer tubular member, the outer and inner tubular members defining at least a portion of the inflation lumen; the inner tubular member having an inner lumen for slidably receiving a guidewire therein; the outer and inner tubular members being partially attached at least one juncture proximal to the balloon proximal end.

2. The catheter of Claim 1 wherein at least one juncture has a longitudinal dimension ranging from about 1 to about 4 mm.

3. The catheter of Claim 2 wherein at least one juncture has a longitudinal dimension ranging from about 2 to about 4 mm.

4. The catheter of Claim 3 wherein at least one juncture has a longitudinal dimension ranging from about 1 to about 2 mm.

5. The catheter of Claim 1 wherein the at least on juncture has a radial dimension ranging from about 0.5 to about 3 mm.

6. The catheter of Claim 5 wherein at least one juncture has a radial dimension ranging from about 1 to about 2 mm.

7. The catheter of Claim 1 wherein the at least one juncture is proximally spaced apart from the balloon proximal end in a range up to about 3 mm.

8. The catheter of Claim 7 wherein the at least one juncture is proximally spaced apart from the balloon proximal end in a range up to about 1 mm.

9. The catheter of Claim 1 wherein there are at least two junctures.

10. The catheter of Claim 9 wherein the junctures are located along the same length of the catheter.

11. The catheter of Claim 9 wherein the junctures are longitudinally spaced apart.

12. The catheter of Claim 9 wherein the junctures are disposed radially at substantially equal distance from one another.

13. The catheter of Claim 1 wherein at least an inner surface of the outer tubular member is formed of a first material and the at least the outer surface of the inner tubular member is formed of a second material, the first and second material being bondable to one another.

14. The catheter of Claim 13 wherein the first and second material are bondable to one another upon the application of heat.

15. The catheter of Claim 1 wherein the inflatable balloon is configured to receive a deployable device thereon.

16. The catheter of Claim 1 wherein the catheter is a stent delivery catheter including a stent disposed on at least a portion of the balloon intermediate section.

17. A method for forming a balloon catheter, comprising:

providing a balloon catheter having an elongated shaft with proximal and distal shaft sections and an inflation lumen extending therein, an inflatable balloon on the distal shaft section and in surrounding relation thereto having proximal and distal ends, an intermediate section longitudinally disposed between the balloon proximal and distal ends, and an interior chamber in fluid communication with the inflation lumen, and an outer tubular member and an inner tubular member disposed within at least a portion of the outer tubular member, the outer and inner tubular members defining at least a portion of the inflation lumen, the inner tubular member having an inner lumen for slidably receiving a guidewire therein;

providing a tubular member having proximal and distal ends and at least one cutaway strip extending from the tubular member distal end to a location proximal to the tubular member distal end;

disposing a hollow mandrel over the inner tubular member within the outer tubular member, the distal end of the tubular member being distal to the balloon proximal end;

providing a protective sleeve at a distal portion of the distal shaft sections housing at least a portion of the mandrel including the cutaway strip;

providing substantially monochromatic energy at a wave length of maximum spectral absorption of the materials forming at least the inner surface of the outer tubular member and at least the outer surface of the inner tubular member;

controllably directing the monochromatic energy onto a predetermined length of the distal portion of the catheter distal shaft section to concentrate the monochromatic energy to form a juncture between a portion of the outer tubular member and a portion of the inner tubular member;

melting the materials of at least the outer surface of the inner tubular member and the inner surface of the outer tubular member along the juncture;

allowing the previously melted materials to cool and solidify to form a bond between the outer tubular member and the inner tubular member;

removing the protective sleeve and the mandrel.

18. The method of Claim 17 wherein the mandrel is dimensioned to have an outer diameter sufficiently smaller than an inner diameter of the outer tubular member and an inner diameter sufficiently larger than an outer diameter of the inner tubular member to be slidably received within the outer tubular member over the inner tubular member.

19. The method of Claim 18 wherein the mandrel has a cutaway strip extending from a mandrel distal end 115 to a location proximal to the thereto.

20. The method of Claim 19 wherein the mandrel has at least two cutaway portions.

21. The method of Claim 17 wherein the mandrel is formed of a material which is permanently not bondable to at least the inner surface of the outer tubular member and the outer surface of the inner tubular member.

22. The method of Claim 21 wherein the mandrel is formed of a material selected from the group including stainless steel, 304v stainless steel, coated stainless steel, Teflon coated stainless steel, pyrelene coated stainless steel, NiTi alloy, MP35N, Elgiloy, braided polyimide, polyetheretherketone, polyetherketone, and polyketone.

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